

WHAT IS CLAIMED IS:

1. A method of printing an image comprising the steps of:

5 converting the image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information;

defining each pixel as either a background pixel, interior pixel, or an edge pixel;  
and,

reassigning the digital value of one or more edge pixels or interior pixels to lower values independently in order to reduce toner consumption of the printer.

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2. A method in accordance with claim 1, wherein the converting step comprises converting the image to a binary digital bitmap and the reassigning step comprises reassigning the binary digital values to multi-bit digital values.

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3. A method in accordance with claim 1, wherein the converting step comprises converting the image to a multi-bit digital bitmap and the reassigning step comprises reassigning the binary digital values to multi-bit digital values.

20 4. A method in accordance with claim 1, wherein the reassigning step comprises increasing the value of edge pixels with respect to interior pixels.

5. A method in accordance with claim 1, wherein the reassigning step comprises decreasing the value of edge pixels with respect to interior pixels.

6. A method in accordance with claim 1, further comprising performing the  
5 defining and reassigning steps two or more times.

7. A method in accordance with claim 1, wherein the reassigning step comprises reassigning multiple interior pixel values.

10 8. A method of printing an image comprising the steps of:

converting the image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information;

defining each pixel as a background pixel, interior pixel, edge pixel, one line pixel, or two line pixel; and,

15 reassigning the digital value of one or more interior pixel, edge pixel, one line pixel, or two line pixels to lower values independently in order to reduce toner consumption.

9. A method in accordance with claim 8, wherein the converting step comprises  
20 converting the image to a binary digital bitmap and the reassigning step comprises reassigning the binary digital values to multi-bit digital values.

10. A method in accordance with claim 8, wherein the converting step comprises converting the image to a multi-bit digital bitmap and the reassigning step comprises reassigning the binary digital values to multi-bit digital values.

5 11. A method in accordance with claim 8, wherein the reassigning step comprises increasing the value of edge pixels with respect to interior pixels.

12. A method in accordance with claim 8, wherein the reassigning step comprises decreasing the value of edge pixels with respect to interior pixels.

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13. A method in accordance with claim 8, further comprising performing the defining and reassigning steps two or more times.

14. A method of printing an image comprising the steps of:

15 converting the image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information;

defining each pixel as either a background pixel, interior pixel, or an edge pixel;  
and,

reassigning the digital value of one or more edge pixels or interior pixels to lower  
20 values independently in order to reduce toner consumption of the printer.

15. A method in accordance with claim 14, wherein the reassigning step comprises reassigning multiple interior pixel values.

16. An apparatus for altering the appearance of an image printed by a printer, the printer utilizing input digital image data comprised of an array of pixels and wherein each pixel is assigned a digital value representing marking information, the apparatus  
5 comprising a rendering circuit for defining each pixel as either a background pixel, interior pixel, or an edge pixel; and reassigning the digital value of one or more of the edge pixels or interior pixels independently in order to reduce toner consumption of the printer.

10 17. An apparatus in accordance with claim 16, wherein the digital image data is binary.

18. An apparatus in accordance with claim 16, wherein the digital image data is a multi-bit.

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19. An apparatus in accordance with claim 16, wherein reassigning comprises increasing the value of edge pixels with respect to interior pixels.

20 20. An apparatus in accordance with claim 16, wherein reassigning step comprises decreasing the value of edge pixels with respect to interior pixels.

21. An apparatus in accordance with claim 16, wherein the rendering circuit further comprises performing the defining and reassigning steps two or more times.

22. An apparatus in accordance with claim 16, wherein reassigning comprises reassigning multiple interior pixel values.

5           23. An apparatus for altering the appearance of an input digital image when printed utilizing a printer comprising:

          a raster image processor for converting the image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information;

10           a rendering circuit for defining each pixel as either a background pixel, interior pixel, or an edge pixel; and, reassigning the digital value of one or more edge pixels or interior pixels to lower values independently in order to reduce toner consumption.

          24. An apparatus in accordance with claim 23, wherein converting comprises  
15 converting the image to a binary digital bitmap and the reassigning step comprises reassigning the binary digital values to multi-bit digital values.

          25. An apparatus in accordance with claim 23, wherein converting comprises  
20 converting the image to a multi-bit digital bitmap and reassigning comprises reassigning the binary digital values to multi-bit digital values.

          26. An apparatus in accordance with claim 23, wherein reassigning comprises increasing the value of edge pixels with respect to interior pixels.

27. An apparatus in accordance with claim 23, wherein reassigning comprises decreasing the value of edge pixels with respect to interior pixels.

5           28. An apparatus in accordance with claim 23, wherein the rendering circuit performs performing the defining and reassigning two or more times.

29. An apparatus in accordance with claim 23, wherein reassigning comprises reassigning multiple interior pixel values.

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